

REMARKS/ARGUMENTS

AMENDMENT TO THE SPECIFICATION

Paragraph [0029] of the present application has been amended to correct a typographical error. Specifically, the word “ration” on line 9 is replaced with the word “ratio” as originally intended.

CLAIM REJECTION UNDER 35 USC §103

A number of claims have been amended to obviate the Examiner’s 35 U.S.C. 112 rejections thereof.

Claims 1-4, 8-15, 19-25, and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman (U.S. Publication 2002/0135696; hereinafter “Perlman”) in view of Shigeta (U.S. Publication 2002/0089518; hereinafter “Shigeta”). Claims 7, 18, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman in view of Shigeta and further in view of Naegle (U.S. Publication 2004/0012577; hereinafter “Naegle”).

The Applicants believe that for at least the reasons stated below, that none of the references taken in any reasonable combination render any pending claims unpatentable under 35 U.S.C. 103(a).

The Examiner cited Fig 3a, Fig 3b and stated at page 4 item 9, “the units are configurable based upon input format and attributes of the display” in support of the rejection of the element “a number of configurable image converter units each coupled to an associated one of the ports” recited in claims 1, 12, and 23. The Applicants respectfully disagree with the Examiner in this regard. More specifically, at no point does Perlman teach or even remotely suggest “configurable image converters” as required by the rejected claims. The only “conversion” performed by Perlman is converting interlaced to non-interlaced images described at paragraph

[0024], “If the display is not interlaced, at 302, the system analyzes the source content to determine whether any of the source content is in an interlaced format. If it is, then at 304 the system deinterlaces the source content...”. Therefore, the “image converters” relied on by the Examiner are not configurable since Perlman’s “image converters” are dedicated deinterlacers and cannot be configured to do anything but deinterlace.

Furthermore, there is no indication in Perlman that the display itself provides display characteristics to the system. On the contrary, at paragraph [0024], “the system initially determines whether the display on which the multimedia content is to be rendered is interlaced or non-interlaced”. Therefore, Perlman relies upon the “system” to determine whether the display is interlaced or not whereas the invention relies upon the display itself communicating with the system controller all of the appropriate display characteristics required for properly formatting the various input video streams. The display provides display characteristics (by way of EDID, for example) to the system controller that, in turn, uses the display data sent by the display to configure the image converters appropriately. In particular, the specification recites the following:

In those cases where the video processing circuit 200 is configurable, the display unit 210 provides a set of display attributes 212 (such as color space, progressive vs interlaced, resolution, refresh rate, etc.) to a system controller unit 214. It should be noted that the display attributes can be described in terms of Extended Display Identification Data (EDID) that is a VESA standard data format that contains basic information about a monitor and its capabilities, including vendor information, maximum image size, color characteristics, factory pre-set timings, frequency range limits, and character strings for the monitor name and serial number. The system controller unit 214 uses the set of display attributes 212 to configure the various elements of the video processing circuit 200 in order to provide a video signal of the appropriate kind and format for display by the display 210.

Therefore, the Applicants believe that Perlman does not teach or suggest configurable image converter units as required by claims 1, 12, and 23. On the contrary, Perlman teaches only

dedicated deinterlacing units that can not be configured to do anything but perform a deinterlacing function. In contrast, the configurable image converter units of the inventive video processor can be configured by the system controller based upon the display characteristics provided thereto by the display itself.

Furthermore, it should be noted that Perlman specifically teaches that content is converted to progressive scan format (i.e., non-interlace) even in those situations where the display is interlaced. For example, at paragraph [0027], “if the display on which the content will be rendered is interlaced, then the method proceeds to Fig. 3b...at 350 the system determines whether any of the source content is interlaced, if so, then the system compares the resolution and/or scaling of the display with the resolution or scaling of the source content. If the source content is not at the same resolution and/or scaling as the display, then at 354 the source content is *deinterlaced*... and is transformed to match the display resolution”.

Perlman goes on at paragraph [0028] to describe how the non-interlaced (that was originally interlaced) is displayed on the interlaced display that requires the flicker filter described previously for which the Examiner cited Shigeta. In contrast, the invention provides for displaying interlaced images on interlaced displays as described in paragraph [0018] of the specification where an interlacing unit is used to provide the interlaced image to be displayed on the interlaced display. In contrast, Perlman specifically teaches away from interlacing a heretofore non-interlaced image.

The Applicants would also like to note that in the rejection of claim 2, 13, and 24, the Examiner states, “Perlman discloses a configurable real time video processor wherein when a second display unit having a second set of display attributes replaces the first display unit, then the system controller uses the second set of display attributes received from the second display

unit to reconfigure the configurable image converter units”. Again, the Applicants respectfully disagree since Perlman does not rely upon display attributes received from the second display unit to reconfigure the configurable image converter units. At best, Perlman merely uses a dedicated deinterlacer unit to process incoming video that requires such processing. At no point is there any reconfiguring going on based upon received display characteristics as recited in claims 2, 13, and 24.

CONCLUSION

Applicants respectfully submit that all pending claims are in proper form and are in condition for allowance, and request a Notification of Allowance to that effect. It is believed that no fee is due at this time. Should any fee be required for any reason related to this document, however, then the Commissioner is hereby authorized to charge said fee to Deposit Account No. 504481, referencing Docket No. GENSP052. The Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below with any questions or concerns relating to this document or application.

Respectfully submitted,
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